

# **SPECIFICATION**

62-21-05262-21-07262-21-05362-21-07362-21-05462-21-074

## NFPA 99 Compliant Duplex "Oil-Less" Scroll Medical Air Package

### 5-7.5 HP Horizontal Tank Mounted with Single Point Connection and Desiccant Dryers

#### Air Compressor Package

- Fully compliant with the latest edition of NFPA 99
- Two "oil-less" scroll air compressor modules with inlet filter, isolation valve and high inlet vacuum switch for each
- ASME coded corrosion resistant air receiver with bypass
- Duplex desiccant air dryer system with purge control and piped with duplex pre-filters, after filters and regulators
- Duplex control panel with HMI control monitoring system
- All discharge air piping and fittings ASTM B-819 copper tubing, brass and/or stainless steel
- All discharge flex connectors braided, 304 stainless steel
- Individual compressor isolation valve
- All components completely pre-piped and pre-wired to single point service connections
- All interconnecting piping and wiring is completed and operationally tested prior to shipment
- Liquid tight conduit, fittings and junction boxes for all control and power wiring

### Air Compressor Module

- Continuous duty rated
- Air-cooled single stage scroll type
- Constructed of one fixed and one orbiting scroll sealed with PTFE tip seals between the scroll halves
- Rated for 120 psig discharge pressure
- Protected from dust or contamination with a two-part face seal
- Drive/Orbiting bearings grease filled 10,000hour maintenance
- Scroll housing constructed of die cast aluminum
- Integral cooling and air ducting for maximum heat dissipation
- Stationary pumps and motor for ease of alignment
- Air-cooled aftercoolers for each compressor module with maximum approach temperature of 15° F and automatic solenoid drain valves
- V-belt drive with means of adjustment
- OSHA approved, totally enclosed belt guard
- High discharge air temperature shutdown switch wired to the compressor control system for each compressor
- Discharge line valve for load-less starting
  Each compressor discharge line equipped with a safety relief
- valve, a check valve, isolation valve, and flex connector

### **Compressor Motor**

- NEMA rated Open drip proof
- 3600 RPM, with 1.15 service factor
- 208 or 230/460V

### Vibration Isolation System

- Compressor and motor fully isolated from the package base by means of a four-point, heavy duty, isolation system
- Minimum of 95% isolation efficiency
- Optional seismically restrained isolators at an additional cost
   Dryer/Filter/Regulator System
- Dual desiccant air dryers with an integral demand-based purge saving control system
- Each dryer individually sized for peak calculated demand and capable of producing a  $10^{\circ}$  F (- $12^{\circ}$  C) pressure dew point
- High efficiency coalescing pre-filter rated for 0.01 micron on each dryer with automatic drain and element change indicator
- Particulate final line filters rated for 0.01 micron on each dryer with element change indicator
- Final line regulators and safety relief valves on each dryer
- Isolation valves to permit servicing without shutting down the medical air system
- Air sample port

## Air Receiver

- Corrosion resistant and integrally mounted with 3-valve bypass
- ASME Code stamped and National Board Certified
- Rated for a minimum 200 PSIG design pressure
- Liquid level sight glass
- Safety relief valve
- Manual drain and Automatic timed solenoid drain valve
- Pressure Gauge

#### Dew Point Hygrometer/CO Monito

- Dew point hygrometer/CO monitor with integral chemical CO sensor pre-piped, wired and includes remote alarm contacts
   Hygrometer sensor ceramic type
- Accuracy minimum of  $\pm 2^{\circ}$  F for dew point and  $\pm 2$  PPM (at 10 PPM) for carbon monoxide
- Dew point alarm factory set at 36° F (2° C) per NFPA 99
- CO alarm factory set at 10 PPM
- Both set points field adjustable
- High CO and dew point indicated with visual/audible alarms

### System Health

- Monitoring and Trending of key components to provide notification of potential issue with the Health of the System
- Pressure monitoring
- Current monitoring for each motor
- Ambient Temperature monitoring
- CO monitoring
- Dew Point monitoring

### Control System

- Mounted and wired duplex control system
- NEMA 12 and UL 508A labeled
- Automatic lead/lag sequencing
- Circuit breaker disconnects for each motor with external operators
- Full voltage motor starters with overload protection
- 120V control circuit transformers for each motor circuit
- Visual and audible reserve unit alarm with isolated contacts for remote alarm
- Hand-off-auto selector switches for reliable back-up
- Automatic alternation of compressors based on a first-on/first-off principle with provisions for simultaneous operation
- Automatic activation of reserve unit if required
- Visual and audible alarm indication for high discharge air temperature shutdown with isolated contacts for remote alarm
- SIGNAL 1<sup>TM</sup> touch screen gateway

#### <u>Standard Screen Displays</u> ne + Replacement parts

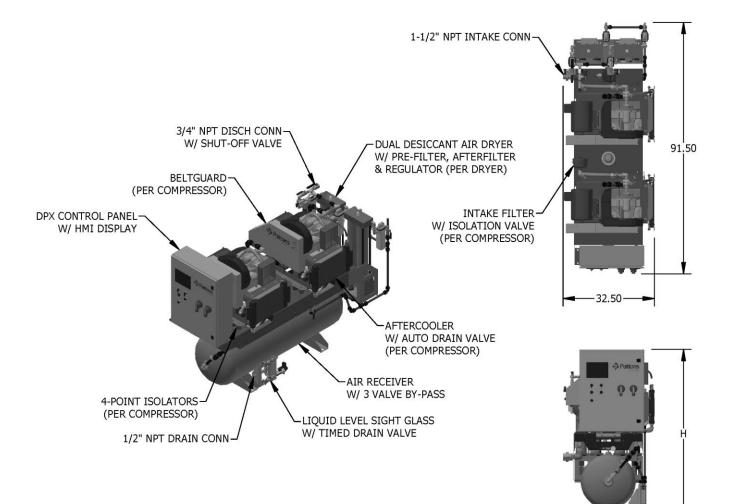
- + Air level/Runtime + Alarm history
  - + Troubleshooting guidelines
- + Service Indicator
- + Historical trending of system status
- + Maintenance Schedule + System Health
- 7" Wide TFT Graphic Touch Screen with Motion Actuated Backlit LED and Bright 65,536 (16-bit) Colors
- Downloadable Trend Information via USB Host Port or Network
  Device
- 128MB Flash Memory, 64MB DRAM
- Built-in Ethernet Port 10/100 Base-T (RJ45)
- Supports over 100 Communication Protocols including Ethernet IP, and Modbus TCP/IP
- Built-in VNC server allowing remote monitoring of live graphics through standard browser, smart phones & mobile devices
- Share data between HMI and Building Management systems

+ System Health

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Duplex Scroll Medical Air Package Specifications <sup>1</sup>											
Model Number	НР	System Capacity <sup>2</sup>				System FLA					
		50 psig	110 psig	Package BTU/HR <sup>3</sup>	Noise Level <sup>4</sup>	208V (A)	230 (B)	460V (C)	Receiver (gallons)	H (inches)	Weight (pounds)
62-21-052(A/B/C)	5	17.2	16.0	11,507	70	29	26	13	80	62	1,113
62-21-053(A/B/C)									120	66	1,246
62-21-054(A/B/C)									200	72	1,594
62-21-072(A/B/C)	7.5	25.2	24	17,062	72	41	37	19	80	62	1,193
62-21-073(A/B/C)									120	66	1,327
62-21-074(A/B/C)									200	72	1,674

Notes:

<sup>1</sup> Normal Operating conditions at a maximum ambient of 105° F. Consult factory for higher ambient conditions.

<sup>2</sup> Capacities are shown as NFPA system capacities (reserve compressor on standby) and are shown in Inlet Cubic Feet per Minute (ICFM).

<sup>3</sup> Package BTU/HR are shown with the reserve compressor on standby.

<sup>4</sup> Noise levels are shown in dB(A) with the reserve pump on standby.

### **Statement of Warranty**

**Patton's Medical** warrants all Medical Air packages, to be free of defects in material and workmanship under normal use for a period not to exceed thirty (30) months from date of shipment, or twenty-four (24) months from date of start-up.